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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,225	10/14/2003	Robert William Lord	MS1-828USC1	4629

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EXAMINER	
WONG, LESLIE	
ART UNIT	PAPER NUMBER
2164	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/22/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/22/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lhptoms@leehayes.com

Office Action Summary	Application No.	Applicant(s)	
	10/685,225	LORD ET AL.	
	Examiner	Art Unit	
	Leslie Wong	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11 and 18-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11 and 18-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/13/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. Applicants' Information Disclosure Statement, filed 14 October 2003, has been received, entered into the record, and considered. See attached form PTO-1449.

Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claim 11 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 5 of prior U.S. Patent No. 6,665,863 B1. This is a double patenting rejection.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-4, 8, 16, 17, 21, and 22, drawn to navigating directed labeled graph structure, classified in class 715, subclass 854.

II. Claims 11, 18-20, and 23-29, drawn directed labeled graph with an annotated schema runtime interface classified in class 707, subclass 104.1.

III. Claim 30, drawn to data structure for the schema, classified in class 707, subclass 102.

2. The inventions are distinct, each from the other because of the following reasons:

3. Inventions I - III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, each of the respective inventions has a separate utility as in a system not having the others. See M.P.E.P. § 806.05(d).

4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for the other Groups, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7. A telephone call was made to Mr. Kasey C. Christie on March 08, 2004 to request an oral election to the above restriction requirement. An election affirmation was made without traverse of Group II, claims 11, 18-20, and 23-29. Group I, claims 1-4, 8, 16, 17, 21, and 22 and Group III, claim 30, are withdrawn from further consideration by the examiner, 37 CFR 1.142(b) as being drawn to a non-elected.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 C.F.R. § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently-filed petition under 37 C.F.R. § 1.48(b) and by the fee required under 37 C.F.R. § 1.17(h).

Claim Objections

9. Claim 24 is objected to because of the following informalities: independent claim 24 is not in proper format. There is no distinction between the body of the claim and the preamble. See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F.3d 558, 56 USPQ2d 1865 (CA FC 2000). Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

11. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

13. Claim 18, line 5, recites the term "capable of" does not impart functionality in the claims; it merely suggest making an option to perform a functionality but not actually having the software programmed to provide that functionality exclusively.

14. Claims 19-20 are rejected for fully incorporating the deficiencies of their respective base claims by dependency.

15. Claim 23, line 5 and line 9 both refer to "a client", should "a client" from line 9 be "the client".

Claim Rejections - 35 USC § 101

16. 35 U.S.C. 101 reads as follows:

17. Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

18. Claims 11, 18-20, 23, and 24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The language of the claim raises a question as to whether the claim is directed merely to an environment or machine which would result in a practical application producing a concrete, useful, and **tangible result** to form the basis of statutory subject matter under 35 U.S.C 101.

19. Claim 11 is for system, but the claims lack of hardware components such as a processor or memory for any functions to be realized. As such the claims are non-statutory.

20. Claims 18 and 23 are also rejected because they do not appear to produce tangible results.

21. Claim 24 is rejected because it is not statutory, the claim recites "... IASR cursor application ... configured as a **software** module..." The claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

To expedite a complete examination of the instant application the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in

anticipation of applicant amending these claims to place them within the four categories of invention.

Claim Rejections - 35 USC § 102

22. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

23. Claim18-20 and 23-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Josephine Micallef and Gail E. Kaiser ("**Micallef et al**" hereinafter "**Micallef**") "Support Algorithms for Incremental Attribute Evaluation of Asnchronous Subtree Replacements".

Regarding claim 18, **Micallef** teaches a computer-readable medium having stored thereon a data structure comprising:

A graph having a plurality of nodes and links (page 242, Fig. 15); and

At least one variable bound to one of the plurality of nodes and links, wherein the data structure is capable of having at least two variables bound to one of the plurality of nodes and links (page 240, Fig. 10 and the two paragraphs following Fig. 12, page 241).

Regarding claim 19, **Micallef** further teaches the linked list further comprises a graph (Fig. 15).

the bound variable further comprises the spider cursor as multiple editing cursors" cursor movement operations and subtree replacements (page 241, section V. Multiple cursors and Characteristic Graphic)

Regarding claim 20, **Micallef** further teaches wherein the bound variable is bound using a restriction (page 243, first column, second paragraph ("compute subordinate and compute Superior")).

Regarding claim 23, **Micallef** teaches a computer-readable medium having computer-executable instructions for implementing a spider system, comprising:

An annotated schema runtime interface (IASR) application program interface configured as a software module to interface with an annotated schema runtime engine and to handle requests from a client for a spider cursor (i.e., multiple cursors) function (page 240, Fig. 10 and the two paragraphs following Fig. 12, page 241, section V: multiple cursors and characteristic graph); and

An annotated schema runtime interface (IASR) cursor application program interface configured as a software module to interface with an annotated schema runtime engine and to handle requests from a client for a spider cursor function (page 240, second paragraph: "Subtree replacement operations can be performed ... by an editing cursor"; page 234, Section B: Calendar, Fig. 3; page 240, Fig. 10 and the two paragraphs following Fig. 12).

Regarding claim 24, **Micallef** teaches an annotated schema runtime interface (IASR) cursor application program interface configured as a software module to interface with an annotated schema runtime engine and to create a new node in a graph from information comprising a variable and a constraint (page 243, first column, second paragraph ("compute subordinate and compute Superior"; page 234, Section B: Calendar, Fig. 3; page 240, Fig. 10 and the two paragraphs following Fig. 12).

Regarding claim 25, **Micallef** further teaches an IASR cursor application program interface for storing new nodes an links (page 242, section B: Updating characteristic Graphs after Subtree Replacement).

Regarding claims 26-29, **Micallef** further teaches an IASR cursor application program interface for finding the first/last/next/previous node or link in the graph in reference to the constraint from information comprising a variable specifying the first node or link in the graph with respect to the current sort order (page 237, last paragraph: "One approach to incrementally...", page 241, paragraph V-A: Effect of cursor Movement on Characteristic Graphs, DescendToChild, AscendToParent).

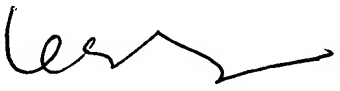
Conclusion

24. The prior art made of record and not relied upon in form PTO-892 is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leslie Wong whose telephone number is (571) 272-4120. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES RONES can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Leslie Wong
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LW
March 16, 2007